ORIGINAL ARTICLE

Thyroid Dysfunction in Postmenopausal Women

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ABSTRACT

Aim: To determine the thyroid dysfunction in postmenopausal women
Methods: A total of fifty patients clinically presented as hypothyroidism were recruited and included in the cross sectional descriptive study conducted from March-2018 to May-2018 at tertiary care teaching hospital Hyderabad. The inclusion criteria was the postmenopausal women while the exclusion criteria were the patients The exclusion criteria of the study were known cases of thyroid malignancy, chronic kidney and liver disease, the patients already on hormone replacement therapy, known cases of ovarian and uterine malignancy and the patients already on medications as iodide, amiodarone, salicylates, propranolol, lithium and corticosteroids. The detail history was taken; relevant physical examination was performed while along with baseline investigations the specific investigations as thyroid function test was advised.
Results: During three months study period total fifty patients with thyroid dysfunction were recruited and studied had mean age ± SD identified as 53.86±8.64 (yrs). The diabetes mellitus was observed in 20 (40%), regarding residence, the urban 22 (44%) and rural 28 (56%), hyperlipidemia 30 (60%), hypertension 22 (44%). Regarding the thyroid status, subclinical hypothyroid 14 (28%), hypothyroid 10 (20%), thyrotoxicosis 06 (12%), euthyroid 20 (40%) while the co-morbid the obesity 23 (46%), osteoporosis 21 (42%) and asthma / copd 10 (20%)
Conclusion: The thyroid dysfunction commonly observed in postmenopausal women with subclinical hypothyroidism as predominant dysfunction followed by hypothyroidism whereas the existence of hyperthyroidism was observed to be less in our study group of patients.
Keywords: Menopause and Thyroid.

INTRODUCTION

Thyroid dysfunction is commonly seen in general population especially in females in the shape of hyperthyroidism or hypothyroidism or may be subclinical or overt[1]. Hypothyroidism is a common disorder commonly seen in elderly women while subclinical is common than overt hypothyroidism and is usually autoimmune entity presenting as Hashimoto's thyroiditis or atrophic thyroiditis while the hyperthyriodism is less common than hypothyroidism, although Graves disease is most common usually affecting young adults while the toxic multinodular goitre less common seen in older age group[2-5]. The hypothyroidism affects almost all systems of body and also affects lipid metabolism by inhibiting degradation of fat leads to accumulation of LDL and TG[6]. Postmenopause is the time period after menopause and is diagnosed as twelve consecutive months of amenorrhoea because of ovarian follicular dysfunction along with hormonal changes[7]. There is reduction in two hormones as progesterone and estradiol while increase in FSH and LH and the disturbance leads to increase in LDL-C and decrease in HDL-C and have increased cardiovascular risk due to dyslipidemia. The postmenopausal ladies have increased risk for hypothyroidism either overt or subclinical[8]. The autoimmunity also increases the risk for cardiovascular deaths due to dyslipidemia, IHD and stroke[9]. According to the AACE, millions of women with persistent menopausal symptoms usually suffer from undiagnosed thyroid disorders[10]. As women spend one third of their lives after menopause, so screening can effectively detect the presence of thyroid disturbance during postmenopausal state and recommendations can be design to manage this group of our population timely.

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PATIENTS AND METHODS

The cross sectional multidisciplinary study of three months (from March-2018 to May-2018) was conducted at Liaquat University Hospital Hyderabad / Jamshoro on the postmenopausal women recruited by non probability consecutive sampling technique. The exclusion criteria of the study were known cases of thyroid malignancy, chronic kidney and liver disease, the patients already on hormone replacement therapy, known cases of ovarian and uterine malignancy and the patients already on medications as iodide, amiodarone, salicylates, propranolol, lithium and corticosteroids. The detail history was taken; relevant physical examination was performed while along with baseline investigations the specific investigations as thyroid function test was advised. The purpose of the study was explained to the patients while the informed consent was taken from every participant. The data was recorded on proforma while analyzed in SPSS-21 to calculate the mean ± SD, frequencies and percentages.

RESULTS

During three months study period total fifty patients with thyroid dysfunction were recruited and studied had mean age±SD identified as 53.86±8.64 (yrs). The demographical and clinical profile of study population is presented in Table I.

Table 1: The demographical and clinical profile of study population (n=50)

Parameter	Frequency	%age
45-49	03	6.0
50-59	08	16
60-69	14	28
70-79	18	36
80+	07	14
Diabetes mellitus		
Yes	20	40
No	30	60
Residence		
Urban	22	44
Rural	28	56
Hyperlipidemia		
Yes	30	60
No	20	40
Hypertension		
Yes	22	44
No	28	56
Thyroid status		
Subclinical hypothyroid	14	28
Hypothyroid	10	20
Thyrotoxicosis	06	12
Euthyroid	20	40
Co-morbids		
Obesity	23	46
Osteoporosis	21	42
Asthma / COPD	10	20

DISCUSSION

Thyroid dysfunction is common endocrine disorder in adult population and is more common in female gender and incidence increase with age[11]. Most of the time, the postmenopausal symptoms resemble thyroid dysfunction symptoms while the hypothyroidism is associated with hyperlipidemia CAD and other CVS risk like ischemic heart diseases and arrhythmias but considered as treatable conditions[12]. The present study determines the prevalence of thyroid dysfunction in postmenopausal women and alteration in lipid metabolism. In our study, mean age of patients in study was 53.86±8.64 years. Out of fifty patients, the subclinical hypothyroid was 14(28%), hypothyroid 10(20%), thyrotoxicosis 06(12%) and euthyroid 20(40%). According to Schindler AE the incidence of thyroid dysfunction in postmenopausal women as clinical thyroid disease 24%, subclinical thyroid disease 23.2%, around 73.8% are hypothyroid and 26.2% are hyperthyroid[13]. According to former study the incidence of subclinical hypothyroidism varies between 6 -8%.[14] In present study, 60% of patients had dyslipidemia and majority of population with clinical hypothyroidism had dyslipidemia with predominant pattern as hypercholesterolemia. The obesity was observed in 46% population and was significantly associated with thyroid disturbance.

CONCLUSION

The thyroid dysfunction commonly observed in postmenopausal women with subclinical hypothyroidism as predominant dysfunction followed by hypothyroidism whereas the existence of hyperthyroidism was observed to be less in our study group of patients.

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